CLAIMS:

1.   A data switching device comprising inputs for guaranteed throughput and best effort data, outputs, a data switch interconnecting the inputs and outputs, guaranteed throughput control means coupled for controlling a guaranteed throughput data scheduling and best effort control means coupled for controlling a best effort data scheduling, characterized in that the guaranteed throughput and best effort control means are arranged for a combined control such that the best effort data scheduling is based on a contention free guaranteed throughput scheduling.

2.   The data switching device according to claim 1, wherein the data switching device has at least one guaranteed throughput input buffer for at least one data switch input.

3.   The data switching device according to claim 2, wherein the at least one guaranteed throughput input buffer is one deep.

4.   The data switching device according to claim 2, wherein the data switching device has one and the same output buffer both for collecting guaranteed throughput and best effort data.

5.   A data switching method, wherein guaranteed throughput and best effort data is scheduled for switching, characterized in that the best effort data scheduling is based on a contention free guaranteed throughput data scheduling.

6.   The method according to claim 5, characterized in that the best effort scheduling is performed after the guaranteed throughput scheduling.

7.   The method according to claim 5, characterized in that the guaranteed data scheduling takes one step.

8.   The method according to claim 7, characterized in that the one step involves a reservation of inputs and/or outputs.

9.   The method according to claim 5, wherein the best effort data scheduling takes one or more multiples of three steps, including the steps: request, grant and accept.

10.   The method according to claim 9, wherein a contention resolution for said best effort data scheduling is based on bipartite graph matching.